GET SEPTIC SMART

FACT SHEET 3

WORKING TOWARDS SAFE & RESPONSIBLE ON-SITE SEWAGE MANAGEMENT

ON-SITE SEWAGE MANAGEMENT EDUCATION SERIES

WHAT IS AN AERATED WASTEWATER TREATMENT SYSTEM & HOW DOES IT WORK?

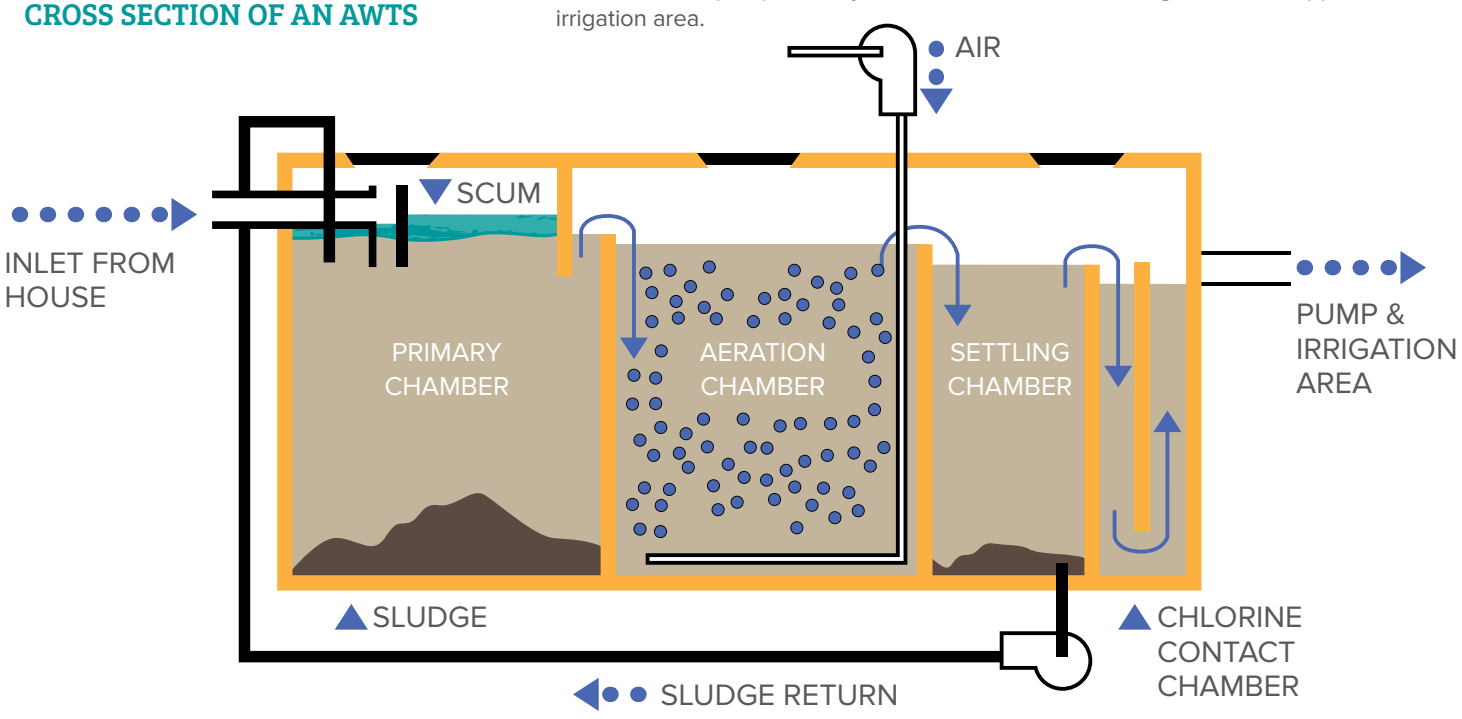
AERATED WASTEWATER TREATMENT SYSTEM

This information will be of interest if your OSMS is an Aerated Wastewater Treatment System. This factsheet provides information about Aerated Wastewater Treatment Systems, how they work, requirements for the irrigation area and service requirements for the systems.

An Aerated Wastewater Treatment System (AWTS) is designed to treat wastewater to a higher standard than a septic tank.

A septic tank is the first stage of treating wastewater in an AWTS. Wastewater flows into the primary chamber from the house and the solids settle to the bottom of the chamber where naturally occurring bacteria convert the material into sludge. Fats and grease form a 'scum layer' on the surface of the water (effluent). This layer is a normal occurrence and helps to keep odours inside the tank. After primary treatment, the effluent then flows into an aeration chamber where air is pumped through it. Sludge from the effluent is then allowed to settle to the bottom of a settling chamber. The effluent then passes through a chlorine contact chamber where most bacteria and viruses are destroyed (if there is adequate chlorine available). The secondary-treated effluent is then pumped away for surface or subsurface irrigation in the approved irrigation area.

DIAGRAM 1:
CROSS SECTION OF AN AWTS



AWTS SERVICE REQUIREMENTS

The electrical components and moving parts in an AWTS require regular servicing and have a limited operational life.

Owners of a property with an AWTS are required to enter into a service Contract for a minimum period of 12 months and ensure that their system is serviced every 3 months for the lifetime of the system. A competently trained service agent or company should be contracted to service your AWTS 4 times a year. A typical 3-monthly service will generally include:

- Replenishing the disinfectant (e.g. chlorine tablets)
- Checking pumps, air blower, fan or venturi
- Checking alarm systems
- Checking slime growth on filter media
- Measuring sludge depth in the primary and setting chambers
- Checking operation of sludge return
- On-site testing of free residual chlorine, pH and dissolved oxygen
- Checking the condition of the irrigation area e.g. sprinklers or drippers are not blocked and are working efficiently, the ground is not too damp or waterlogged, and water is not pooling within the area.

Upon completion of the service, the agent will provide you with a copy of a fully completed service report. A copy of this service report is to be provided to Council within 14 days by the service agent or AWTS owner. If your Service Agent is not adequately completing the appropriate checks and service on your AWTS, please advise Council and lodge a complaint with NSW Fair Trading.

REQUIREMENTS FOR AWTS IRRIGATION AREAS

Whilst effluent from an AWTS has received secondary treatment and is suitable for either above ground or subsurface irrigation, it may still be a health risk to anyone who comes into contact with it.

Effluent is not to be used to water fruit or vegetable crops for human consumption. Lilac (purple) pipe is required to be used for all distribution lines, fittings and fixtures from an AWTS. Subsurface or drip irrigation are preferred as they eliminate the risk of inhalation of aerosols, however sprinklers that produce coarse droplets are also acceptable. Domestic type garden hoses, taps, fittings, sprinklers and micro/fine mist sprays are not permitted to be used (diagram 4).

At least 2 durable warning signs must be visible within the irrigation areas. The warning signs are to use the wording “Reclaimed Effluent – Not for Drinking – Avoid Contact”. Effluent may only be irrigated within the ‘designated’ irrigation area as identified on the plans approved with your Approval to Operate the OSMS. Suitable plants and vegetation (see separate list of suitable plants – factsheet 11) should be planted in the irrigation & surrounding area to absorb the effluent

DIAGRAM 2: CORRECT SIGNAGE WORDING

DIAGRAM 3: INCORRECT SIGNAGE WORDING

DIAGRAM 4: INAPPROPRIATE DISPOSAL OF EFFLUENT FROM AN AWTS USING A FINE MIST SPRAY